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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,471	11/08/2001	Brian M. Curtis	2000P09041US01	4366

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY LAW DEPARTMENT
170 WOOD AVENUE SOUTH
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EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT	PAPER NUMBER
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2636

DATE MAILED: 12/05/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,471

Applicant(s)

CURTIS ET AL.

Examiner

Julie Lieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2002 and 19 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-30, 36-39, 43 and 46-59 is/are rejected.
- 7) ☒ Claim(s) 31-35, 40-42, 44 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3&4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office action is in response to amendment filed November 15, 02 and February 19, 03. Claims 1-20 have been canceled. New claims 21-59 have been added.

Note: the applicant has skipped claim number 49. Therefore, original claim numbers 50-60 have been renumbered as claims 49-59 respectively.

Drawings

2. The drawings are objected to because blocks in the drawings are not labeled with legend. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 21-25, 30, 36, and 43 are rejected under 35 U.S.C. 102(a) as being anticipated by Pramler (GB 2,343,953) (submitted by the applicant).

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Claim 21:

Pramler discloses a system for measuring weight on a vehicle seat comprising:

- a. A seat having a seat bottom
- b. A seat element 17 for mounting the seat to a vehicle structure
- c. A seat support member 6 for supporting the seat bottom relative to the seat element
- d. A bending beam 13 with a first connecting portion 14 for connection to the seat support member, a second connection portion 16 for connection to the seat element, and a central body portion 15 extending between the first and the second connecting portions, the central body portion having a narrow neck section to concentrate strain in the central body portion; and
- e. At least one sensor 34-37 mounted directly to the narrowing neck section for measuring strain resulting from a weight force applied to the seat bottom.

Claim 22:

The bending beam 13 defines a first width at the first and second connecting portions and the neck section defines a second width that is narrower than the first width.

Claim 23:

The first connecting priton14 provides sole connection of the bending beam to the seat support member 17 and the second connecting portion provides sole connection of the bending beam to the seat element 6. See figure 1.

Claim 24:

The first and second connecting portions and the central body are coplanar.

Claim 25:

The first and second connecting portions and the central body portion form an hourglass shape.

Claim 30:

The first connecting portion and second connecting portion include first and second aperture for receiving first and second fastener respectively.

Claim 36:

Pramler discloses a weight sensor assembly for measuring a weight on a vehicle seat comprising:

- a. A bending beam 13 having a first connection portion 14 engageable with an upper seat structure and a second connection portion 16 engageable with a lower seat structure
- b. A bendable central body portion 15 coplanar with and extending between the first and a second connection portions, the central body portion having a narrowing neck to concentrate strain in the central body portion;
- c. A strain gage assembly 33-37 mounted directly to the narrowing neck for measuring the strain at the central body portion resulting from a weight force being exerted against the upper seat structure.

Claim 43:

The first connecting portion 14 provides sole connection of the bending beam to the seat support member 17 and the second connecting portion provides sole connection of the bending beam to the seat element 6. See figure 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 26-29, 37-39, and 46-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pramler (GB 2,343,953) (submitted by the applicant).

Claims 26-29 and 37-39:

Though an extension portion and a support for electrical connector for connecting the sensor to a processing unit is not clearly discussed in the Pramler reference, it would have been obvious to one skilled in the art that the system in Pramler would have some connecting means for connecting to a processing unit because it is an improved sensor arrangement of a vehicle occupant detection system to aid in determining the position of the occupant of the seat.

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The extension portion is not shown in Pramler; however, one skilled in the art would have readily recognized there would be some equivalent means to provide support for the electrical connection for connecting the sensor to the processing unit. Lacking any criticality as to why there must be an extension, how it would produce any unexpected result, or how it would solve any stated problem, it appears any device which provides support of the electrical connector would be functionally equivalent as the extension portion.

Further, how the extension portion is formed would not constitute an inventive step because it is within the knowledge of a skilled artisan to provide support for the electrical connector.

Claim 46:

Pramler discloses a weight sensor assembly for measuring a weight on a vehicle seat comprising:

- a. A bending beam 13 having a first connection portion 14 engageable with an upper seat structure and a second connection portion 16 engageable with a lower seat structure
- b. A bendable central body portion 15 coplanar with and extending between the first and a second connection portions, the central body portion having a narrowing neck to concentrate strain in the central body portion;
- c. A strain gage assembly 33-37 applied directly to the central body portion for measuring the strain at the central body portion resulting from a weight force being exerted against the upper seat structure.

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The examiner takes official notice that because the use of thick-film strain gage is conventional in the art; therefore, it would have been obvious to one skilled in the art to use thick film strain gage in the device of Pramler because it is conventional.

Claims 47-50:

The system in Pramler inherently includes an electrical component for communicating the weight signal to the control unit. Plurality of traces interconnecting the electrical component and the sensor assembly, in particular thick film strain gages are conventional in the art. Also screen-printing of thick film to form strain gage and its associated circuit is very conventional in the art.

Claim 51:

The use of full bridge strain gage as pressure sensor is conventional in the art. Thus, it would have been obvious to one skilled in the art, by the time the invention was made, to use full bridge strain gage as a sensor assembly in Pramler because it is old in the art.

Claim 52:

It is inherent that the Pramler system includes an electrical connector cooperating with the electrical component to communicate with the weight signal to control unit.

Claim 53:

An extension beam to form a support for electrical connector for connecting the sensor to a processing unit is not clearly discussed in the Pramler reference, it would have been obvious to one skilled in the art that the system in Pramler would have some connecting means for connecting to a processing unit because it is an improved sensor arrangement of a vehicle occupant detection system to aid in determining the position of the occupant of the seat. Further,

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how the extension portion is formed would not constitute an inventive step because it is within the knowledge of a skilled artisan to provide support for the electrical connector.

Claim 54:

The central body portion is coplanar with the first and second connection portions and includes a narrowing neck 15 to concentrate stain in the central body portion.

Claim 55:

The first connecting priton14 provides sole connection of the bending beam to the seat support member 17 and the second connecting portion provides sole connection of the bending beam to the seat element 6. See figure 1.

Claims 56-58:

The rejection of claims 56-58 recite the same rejection of claims 46-50, except they are method claims.

Claim 59:

Though not shown in the reference, it would have been obvious to one skilled in the art to provide a protective cover for the electrical component because it would be desirable to protect it from the surrounding environment such as dust, water, etc... which could cause malfunction of the device.

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Allowable Subject Matter

7. Claims 31-35, 40-42, and 44-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Osmer et al., US Patent No. 6,250,671.

Huck et al., US Patent No. 5,107,710.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 703-308-6738. The examiner can normally be reached on Mon-Thursday, 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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A handwritten signature in black ink, appearing to read 'Julie Lieu', with a long, sweeping horizontal stroke extending to the right.

Julie Lieu
Primary Examiner
Art Unit 2636

November 30, 2003.